

OUARTERLY REPORT

ST. CHARLES COUNTY WELL FIELD



Prepared by: Stanley Remington July, August and September, 1996

MONTHLY REPORT

JULY 1996

BY

Stanley Remington

Consulting Hydrologist

J. CHEMICAL ANALYSES

1

The sampling of wells PW-9 and RMW-2 was completed on June 24, 1996. The results have been received and are appended. These were done in conjunction with the Department of Energy's quarterly sampling schedule. Some chemical parameters are sampled each quarter which I do not normally sample each month. The results were below the NPDES limits and within historical ranges.

The treated water from the quarry, batch NP-EPQ2-062796-C, was sampled on June 27, 1996 and the results have been received and are appended. Again no excessive quantities of any type of hazardous chemicals were noted. This again confirms the successful treatment of the quarry water before it is discharged into the Missouri River.

A report from the St. Louis County Environmental Health Laboratories for St. Charles County well water was received and is appended. This was for the County's raw water taken during the month of June 1996. The parameters measured were gross alpha and beta. Both readings show that the parameters were all within historical ranges, and both well below the NPDES limits.

The Quarterly Site and Quarry Water Treatment Plant Effluent Data Summary - Second Quarter 1996 was received from the Department of Energy and is appended for your information.

II. <u>REPORT</u>

A 270 page report was received from the Department of Energy entitled "Weldon Spring Site Environmental Report for Calendar Year 1995." I have not yet had time to review the report, but will do so in the August 1996 report.

10. CONFERENCE

1 attended the 24th Annual Missouri Waste Management Conference in Columbia, Missouri on July 21 - 23, 1996. The main purpose of the Coalition is to provide a forum where industry, government and citizens can share information and opinions on current waste management issues. This conference provides a broad spectrum of meetings on different environmental issues. A participant can select which meetings to attend and receive information on the issues selected. I find the conference very useful for keeping up-to-date on many vital issues.

IV. FUTURE PLANS

I will sample wells PW-3 and PW-4 at the end of July and wells PW-5 and PW-6 at the end of August. My monthly report for July 1996 is being submitted early because I will be gone from August 2 through August 20 to the state of New York.

V. MISCELLANEOUS

The monthly St. Charles County Water Sales Report is appended for you information.

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

July 9, 1996

Stanley M. Remington 956 Broadmoor Lane St. Charles, MO 63301

RE: ATAS #16089.01 Weldon Spring

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on June 27, 1996.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

Enclosures

JAC/dms

REPORT: 1608901EX(252)

DATE : 07-09-96

CLIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS #

: 16089.01

DATE SUBMITTED: 06-27-96

DATE EXTRACTED: 07-01-96

DATE ANALYZED: 07-03-96

METHOD REF. : SW846-8090, EPA METHODOLOGY

PROJECT

: WELDON SPRING

SAMPLE ID : NP-EPQ2-062796-C

RESULTS REPORTED IN ug/L OR PARTS PER BILLION (PPB)

REPORTING

RESULTS LIMIT EXPLOSIVE ND 0.0108 2,6 DNT ND 0.0215 2,4 DNT

OA/QC_SURROGATE RECOVERY

84 🕏 DECACHLOROBIPHENYL (30-150) 98 % TETRACHLORO-M-XYLENE (30-150)

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT:

STANLEY M. REMINGTON

REPORT: 1608901EX(252)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 07-09-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : METHOD BLANK

DATE SUBMITTED: 06-27-96
DATE EXTRACTED: 07-01-96
DATE ANALYZED: 07-03-96

METHOD REF. : SW846-8090, EPA METHODOLOGY

PROJECT : WELDON SPRING SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

REPORTING

EXPLOSIVE	LIMIT	<u>results</u>
2,6 DNT	0.010	DN
2,4 DNT	0.020	DN

OA/OC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150) 58 % TETRACHLORO-M-XYLENE(30-150) 85 % 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1608901EX(252)

DATE : 07-09-96

SAMPLE MATRIX : WATER

ATAS # : LABORATORY CONTROL SAMPLE

DATE SUBMITTED: 06-27-96 DATE EXTRACTED: 07-01-96 DATE ANALYZED: 07-03-96

METHOD REF. : SW846-8090, EPA METHODOLOGY

PROJECT : WELDON SPRING

SAMPLE ID : LABORATORY CONTROL SAMPLE

•	LCS % REC.	LCSD % REC.	RPD	
2,6 DNT	92	84	9	
2,4 DNT	90	82	9	

CLIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1608901EX(252)

DATE : 07-09-96

SAMPLE MATRIX : WATER

ATAS #

: 16089.01

DATE SUBMITTED: 06-27-96

PROJECT : WELDON SPRING

SAMPLE ID : NP-EPQ2-062796-C

PARAMETER	REPORTING LIMIT	BTINU	RESULTS	DATE	METHOD REFERENCE
		IN	ORGANICS		
NITRATE	1.05	mg/L	ИD	07-01-96	SM 418B
ſ		3	METALS		
ARSENIC CHROMIUM COPPER LEAD MANGANESE MERCURY SELENIUM	0.010 0.010 0.010 0.005 0.005 0.0002 0.005	mg/L mg/L mg/L mg/L mg/L	ND ND ND ND 0.015 ND ND	07-03-96 07-03-96 07-03-96 07-03-96 07-03-96 07-05-96	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470 SW 6010

mg/L = PARTS PER MILLION(PPM)

⁼ NOT DETECTED ABOVE REPORTING LIMIT

CLIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1608901EX(252)

DATE : 07-09-96

QA/QC

	DESCRIPTION		PARAMETER	RESULTS
	METHOD BLANK	07-03-96	ARSENIC	<0.010 mg/L
	METHOD BLANK	07-03-96	CHROMIUM	<0.010 mg/L
	METHOD BLANK	07-03-96	COPPER	<0.010 mg/L
	METHOD BLANK	07-03-96	LEAD	<0.005 mg/L
	METHOD BLANK	07-03-96	MANGANESE	<0.005 mg/L
	METHOD BLANK	07-05-96	MERCURY	<0.0002 mg/L
	METHOD BLANK	07-03-96	SELENIUM	<0.005 mg/L
	METHOD BLANK	07-01-96	NITRATE	<1.0 mg/L
	CONTROL SPIKE	07-03-96	ARSENIC	91 % RECOVERY
		07-03-96	CHROMIUM	88 % RECOVERY
	CONTROL SPIKE	07-03-96	COPPER	85 % RECOVERY
	CONTROL SPIKE	07-03-96	LEAD	90 % RECOVERY
3	CONTROL SPIKE	07-03-96	MANGANESE	88 % RECOVERY
	CONTROL SPIKE	07-05-96	MERCURY	107 % RECOVERY
	CONTROL SPIKE	07-03-96	SELENIUM	89 % RECOVERY
	CONTROL SPIKE	07-01-96	NITRATE	101 % RECOVERY
	COMPANDE DE TIM	u,	-	

LIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1608901EX(252)

DATE : 07-09-96

SAMPLE MATRIX : WATER
ATAS EPISODE : #16089
DATE SUBMITTED: 06-27-96

PROJECT REF. : WELDON SPRING

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	RADIONUCLIDE	RESULT
			0.16
NP-EPQ2-062796-C	16089.01	GROSS ALPHA	0 +/- 4
■NP-EPQ2-062796-C	16089.01	GROSS BETA	2 +/- 7
NP-EPQ2-062796-C	16089.01	TOTAL URANIUM(mg/L)	<0.005
NP-EPQ2-062796-C	16089.01	RADIUM-226, TOTAL	0.4 +/- 0.2
NP-EPQ2-062796-C	16089.01	RADIUM-228, TOTAL	0.1 +/- 1.0
INP-EPQ2-062796-C	16089.01	THORIUM-228, TOTAL	0.0 +/- 0.1
NP-EPQ2-062796-C	16089.01	THORIUM-230, TOTAL	0.4 +/- 0.2
NP-EPQ2-062796-C	16089.01	THORIUM-232, TOTAL	0.0 +/- 0.1

^{*} VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.960.

_spci/L= PICOCURIES PER LITER

[/]L = PARTS PER MILLION (PPM)

ENVIRONMENTAL SAMPLE CHAIN-OF-CUSTODY / AUTHORIZATION FORM WELDON SPRING SITE REMEDIAL ACTION PROJECT (WSSEAP)

7295 HIGHWAY 94 SOUTH, ST. CHARLES, MO 63304 TELEPHONE (314) 441 – 8086 TELEX (314) 447 – 0803

Validation Documentation						•	ESAN 4,1,2,1, Reva, tefecine UM	sine LIPS
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Phone Number:	S :	t. Charles	(68			1		
Request Number:	Turnaround Time:	Standard Standard		Accelerated	ated [] Priority	Urgeni	[] Emergency	Ģ
* Sample 1D	QC Date	Matuix	Cont.	Preserv.		Parameters	104-98-441	Azch.
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AUTHORIZATION

MK-F Procurement

Dute

ES&H

Date

Site Shipping Officer

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

July 15, 1996

Stanley M. Remington 956 Broadmoor Lane St. Charles, MO 63301

RE: ATAS #16038.01-#16038.02 Weldon Spring

Dear Mr. Remington:

Enclosed are the analytical reports for the samples received in our laboratory on June 24, 1996.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

Enclosures

JAC/sdp

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

DATE : 07-15-96

SAMPLE MATRIX : WATER

ATAS #

: 16038.01

DATE SUBMITTED: 06-24-96

PROJECT : WELDON SPRING

SAMPLE ID

: RMW-2

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INC	RGANICS		
NITRATE	1.05	mg/L	ND	06-24-96	SM 418 B
)		TCLP TOX	CICITY METAL	4S	
ARSENIC BERYLLIUM COPPER IRON LEAD MAGANESE ZINC MERCURY	0.010 0.003 0.010 0.050 0.005 0.005 0.020 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.066 ND ND 8.32 ND 1.00 0.035 ND	07-01-96 06-28-96 06-28-96 06-28-96 07-01-96 06-28-96 06-28-96	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 484-0080

STANLEY M. REMINGTON CLIENT:

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

DATE : 07-15-96

SAMPLE MATRIX : WATER

: 16038.02 ATAS #

DATE SUBMITTED: 06-24-96

PROJECT : WELDON SPRING SAMPLE ID : PW-9

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE	METHOD REFERENCE
		INC	RGANICS		
NITRATE	1.0	mg/L	ND	06-24-96	SM 418B
		TCLP TO	CICITY METAI	Ls	
ARSENIC BERYLLIUM COPPER IRON LEAD MAGANESE ZINC MERCURY	0.010 0.003 0.010 0.050 0.005 0.005 0.020 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 5.74 0.006 0.366 ND	07-01-96 06-28-96 06-28-96 06-28-96 07-01-96 06-28-96 06-28-96	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

DATE : 07-15-96

QA/QC

DESCRIPTION		PARAMETER	RESULTS
METHOD BLANK	07-01-96 06-28-96 06-28-96 06-28-96 07-01-96 06-28-96	ARSENIC BERYLLIUM COPPER IRON LEAD MAGANESE ZINC	<0.010 mg/L <0.002 mg/L <0.010 mg/L <0.050 mg/L <0.005 mg/L <0.005 mg/L <0.020 mg/L
METHOD BLANK METHOD BLANK	06-26-96 06-24-96	MERCURY NITRATE	<0.0002 mg/L $<$ 1.00 mg/L
CONTROL SPIKE	07-01-96 06-28-96 06-28-96 06-28-96 07-01-96 06-28-96 06-28-96 06-26-96	ARSENIC BERYLLIUM COPPER IRON LEAD MAGANESE ZINC MERCURY NITRATE	102 % RECOVERY 87 % RECOVERY 89 % RECOVERY 100 % RECOVERY 88 % RECOVERY 88 % RECOVERY 93 % RECOVERY 101 % RECOVERY

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

LIENT: STANLEY M. REMINGTON

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

DATE : 07-15-96

SAMPLE MATRIX : WATER ATAS EPISODE : #16038

DATE SUBMITTED: 06-24-96

PROJECT REF. : WELDON SPRING

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	RADIONUCLIDE	RESULT
RMW-2 RMW-2 RMW-2	16038.01 16038.01 16038.01	GROSS ALPHA GROSS BETA TOTAL URANIUM (mg/L)	4 +/- 7* 7 +/- 9* 0.008
PW-9 PW-9 PW-9	16038.02 16038.02 16038.02	GROSS ALPHA GROSS BETA TOTAL URANIUM (mg/L)	1 +/- 5* 7 +/- 8* <0.005

VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.960.

PCi/L= PICOCURIES PER LITER

mg/L = PARTS PER MILLION(PPM)

LIENT: STANLEY M. REMINGTON REPORT: 1603801EX(253)

956 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 07-15-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER : 16038.01 ATAS # DATE SUBMITTED: 06-24-96 DATE EXTRACTED: 06-27-96 DATE ANALYZED : 06-28-96

METHOD REF. : SW846-8330, EPA METHODOLOGY PROJECT : WELDON SPRING SAMPLE ID : RMW-2

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION <u>LIMIT</u>	re sults
	13.0	ND
HMX	14.0	ND
RDX	7.3	ND
1,3,5-TNB	10.0	ND
TETRYL	4.0	ND
1,3-DNB	7.0	ND
NITROBENZENE	9.4	ND
2,6 DNT	5.7	ND
2,4 DNT	6.4	ND
2,4,6 TNT		ND
O-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLIENE	7.9	1417

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 · FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

956 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 07-15-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : 16038.02 DATE SUBMITTED: 06-24-96

DATE EXTRACTED: 06-27-96 DATE ANALYZED: 06-28-96

METHOD REF. : SW846-8330, EPA METHODOLOGY

PROJECT : WELDON SPRING

SAMPLE ID : PW-9

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

LIENT: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

956 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 07-15-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : METHOD BLANK

DATE SUBMITTED: 06-24-96 DATE EXTRACTED: 06-27-96 DATE ANALYZED: 06-27-96

METHOD REF. : SW846-8330, EPA METHODOLOGY

PROJECT : WELDON SPRING SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

OUANTITATION

EXPLOSIVE	QUANTITATION <u>LIMIT</u>	RESULTS
<u>DAL HOOT VD</u>		<u> </u>
HMX	13.0	ND
RDX	14.3	N̈́D
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
O-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

,4 DNT

-NITROTOLUENE -NITROTOLUENE

m-NITROTOLUENE

LIENT: STANLEY M. REMINGTON

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1603801EX(253)

DATE : 07-15-96

SAMPLE MATRIX : WATER

ATAS # : LABORATORY CONTROL SAMPLE

DATE SUBMITTED: 06-24-96 DATE EXTRACTED: 06-27-96 DATE ANALYZED : 06-27-96

METHOD REF. : SW846-8330, EPA METHODOLOGY

110 % 101 %

107 % 112 % 115 %

: WELDON SPRING

PROJECT SAMPLE ID : LABORATORY CONTROL SAMPLE

COMPOUND	PERCENT RECOVERY	
1		
HMX	95 %	
_RDX	102 %	
3,5-TNB	117 %	
ETRYL	76 %	
1,3-DNB	107 %	
FNT	97 %	
TITROBENZENE	117 %	
2,6 DNT	110 %	
	701 0	



AMERICAN TECHNICAL & ANALYTICAL SERVICES, Inc. PAGE

OF

CHAIN OF CUSTODY RECORD

el tab Use		96-72-9		16038,01	£ 02									ound Requirements t to 2 working days	g days	g days	10 working days	ng days			
Preservative	1	\	Remarks 15-3											Tumaround Requirements 1 to 2 working days	3 working days	5 working days	10 work	15 working days	Preservative codes A - none	B - HNO3 C - H2SO4	D-NeOH
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ATAS Client Name	Project Name	Form Completed By	Sample ID		4		•					_		Retinquished by:	Signature	STAN ROMINISTEN	₽	MELDON SYRIAGE	1, 24, 1996	Date/Time	SEND RESULTS TO (Name & Company) :

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Department of Energy

Oak Ridge Operations
Weldon Spring Site
Remedial Action Project Office
7295 Highway 94 South
St. Charles, Missouri 63304

July 11, 1996

Distribution:

QUARTERLY SITE AND QUARRY WATER TREATMENT PLANT EFFLUENT DATA SUMMARY - SECOND QUARTER 1996

If you have any questions, please call me or Bruce Ballew at (314)441-8978.

Sincerely,

Jerry S. Van Fossen Deputy Project Manager

Weldon Spring Site

Remedial Action Project

Jeffy S. Van Forsen

Enclosure:

As stated

cc w/o enclosure:

Martha Windsor, MDNR

Distribution List

Larry Erickson Division of Environmental Quality Missouri Department of Natural Resources Post Office Box 176 Jefferson City, Missouri 65102

Dan Wall Remedial Project Manager U.S. Environmental Protection Agency Region VII 726 Minnesota Avenue Kansas City, Kansas 66101

Stanley Remington Consulting Hydrologist 919 Broadmoor Lane St. Charles, Missouri 63301

Wayne Black St. Louis County Health Department 111 South Meremac 2nd Floor Clayton, Missouri 63105

Conn Roden St. Louis County Health Department 111 South Meremac 2nd Floor Clayton, Missouri 63105

Terry Gloriod Vice President for Production St. Louis County Water Department 535 North New Ballas St. Louis, Missouri 63141

Dave Visintainer City of St. Louis Water Division Chain of Rocks Plant 10450 Riverview Drive St. Louis, Missouri 63137 SUMMARY OF QWTP (BATCH 044) ANALYTICAL RESULTS FROM ALL AGENCIES RECEIVING SAMPLES ON 4/15/96

*

Parket Land

4/24/96 1030

SESULTS						SI, CHARLES	91. FOOIs
AMETER A		_	PMC DATA	Modnr DATA	EPA DATA	TLNDOO	
Second S	PAHAMETER		BESULTS	RESULTS	RESULTS	DATA RESULTS	DATA
Section Sect		1 90/60	<10.0 mg/l	-	NA	NA NA	NA NA
ENGINEER	Sala	50 / 30	1.50 mg/		ΑN	ΝΆ	NA
SE			<0.0355 ma/l		AN.	NA	
1			<0.0063 mo/l		AN	NA	
SEE	CHROMICIA COCCUTO ***	-	<0.0042 mg/l		AN	NA	
SEE	COFFER		<0.0437 ma/l		AN	NA	
AMENABLE 0.004 <-0.00910 mg/l NA	LEAD MANITOR		0.0129.mg/l	-	AN	AN	
AMENABLE 0.002	MANGAMEDE	2000	- 000010mov		NA.	¥	
AMENABLE 0.0075 0.0016 µg/l NA	MEHCURY	60.0	<0.005 ma/l		NA	Ϋ́N	
NA	SELCINION ASSESSED E	0.0075	<0.00147 mail		NA	NA	
Figure F	2 4 DNT	0.22 ua/l	<0.0166 µg/l		NA	¥	
See See		40	<0.500 mg/l	<u>.</u>	ΥN	NA	-
See See	NITO TE ANTRITE AS N	*	<0.007 mg/l		NA	ΑΝ	
NA NA NA NA NA NA NA NA	SIII FATE	200	214 mg/l		NA	¥.	!
NA		***	232 ma/l		N.A	¥	
NA	GROSS AI PHA	•	2.05 ±0.904 pCi/l		Ϋ́	AN	
NA	GEORGE BETA	•	5,39 ±0,986 pCi/l		NA	¥¥	8.3 ±1.1 pCill
NA NA NA NA NA	HEANI M TOTAL	**	1,44 ±0.0438 pCl/I		NA	Υ×	W
Due 5/1/96	DADILIM—296 ***	*	Due 5/1/96		ΥN	≨ļ	¥
SEE BELOW NA NA NA NA NA NA NA	BADIUM-228 ***	, -	Due 5/1/96		ΨN	¥	AN S
(SEE BELOW)	THORIUM 230 ***	•	Due 5/1/96		Ϋ́	AA	¥X
(SEE BELOW)	THORIUM-232 ***	1	Due 5/1/96]	ž	NA NA	¥
NA	PRIORITY POLLUTANTS	(SEE BELOW)	:				
NA	1 SEMI-VOA	*	NA NA	ž	¥	NA I	₹
+ <0.1 µg/l	9 WOA	*	AN.		NA NA	¥	Z.
LY, NO PERMIT DISCHARGE LIMITS of 30 PCI /I; Not to Exceed 100 pCl /I and permonth. Sampled this batch. Ac-227 was also sampled results due 5/1/96.	a PCRa	-	<0.1 µg/l		NA	NA	¥
6.0 - 9.0 S.U. 6.26 NA NA NA NA NA NA NA N	4. PESTICIDES	•	NA			¥	
6.0 - 9.0 S.U. 6.26 NA NA NA NA NA NA NA N	5. METALS / OTHERS	•	NA NA			A.	
NLY, NO PERMIT DISCHANGE LIMITS la of 30 pCl / I. Not to Exceed 100 pCl / I. quired once/month. Sampled this batch. Ac	Hd	6.0 - 9.0 S.U.		NA	AN NA	NA NA	∀ ≥
ue of 30 pCI/I; Not to Exceed 100 pCI/II quired once/month. Sampled this batch. Ac	■ = MONITORING ONLY, I	NO PERMIT DISCHA	<u> </u>	İ			
	** = Design Value of	30 pCI/I; Not to E	- \{\frac{1}{2}\}	77 was afen sampled		1/96.	
	Parameter required	Ojice/industry					
			Labor.				
	NA = NOT BINEINZEU.						

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Salahara L

SUMMARY OF QWTP (BATCH 045) ANALYTICAL RESULTS FROM ALL AGENCIES RECEIVING SAMPLES ON 5/6/96

5/10/96 1030

February PMC DATA Modura DATA February Februa	מפון מפוטולכ					PE CUADIFS	SKIOLIS I
METER MPDES LIMITS PMC DATA MoDNH DATA FESULIS MA							W & STATE W
MACTER MY MY MY MY MY MY MY M		STIM LOCKER	PMC DATA	MoDNH DATA	EPA DATA	COUNTY	COUNTY DESIGNATED
NA NA NA NA NA NA NA NA		N-DESCIMILS	2ES111 TS	RESULTS	RESULTS	DATA RESULIS	
NA	VRAMETER.				 *	¥Z.	ا اخ
NA		09/06	Jan 20.65		¥ Y	AA.	NA
Second S		20/30	2.0 mg/l	<u> </u>		W.	
## 0.11	SOCIAL SOCIAL STATES	0.1	<0.002 mg/l			 	j j
1	- Simple	-	<0.0041 mg/l		₹		
SE	HOWIOM		0.00 76 ma/		 		!
SEE 0.1 0.0197 mg/l NA NA NA NA NA NA NA N	OPPER ***	- - - 1	o popel med		×	¥	
SEE	SAD	 G C	1000000		MA.	¥	!
AMENABLE	ANGANESE	0,1	1/6m /810.0		 	¥.	
AMENABLE		0.004	<0.0001 mg/l			! * *	į
0.0075		0.02	<0.0015 mg/l			! 	 -
Second S	FLEISION STATEMENT FL	0.0075	0.005 mg/1	 			 - -
Figure F	YANIDE AMEINDOL	Pari co o	<0.01 uah		NA	 	<u> </u>
ETA	4-DNT	0.62 0.91	gowoo o		¥	AN.	
Second S	LUORIDE	9	15.00 C		ž	¥	
500 181 mg/l NA	HTHATE + NITHITE AS N	*	Agm Ucu.o>	 	AN.	¥	
PHA TOTAL NA TOTAL TOTAL NA TOTAL TOTAL NA TOTAL TOTAL NA NA NA NA NA NA NA NA NA	HE EATE	200	161 mg/l	 -		¥	
PHA TOTAL TOTA		 - 	192 mg/l			V V	Due + pCil
## 2.89 ± 1.40 pCt/t		 - -	2.50 ± 1.29 pCi/l	 -	*		
NA	HOSS ALPHA	 -	2 RG + 1.40 DCW	-	 - - -	 	
NA	SPOSS BETA	1	10247 + 0046 pCM		¥	5	
NA	JRANIUM, TOTAL	• •	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	 -	AN AN	¥	
TANTS (SEE BELOW) NA	4ADIUM-226 ***	•	DOB 37 14	 -	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	NA NA	¥ - -
NTS (SEE BELOW) NA N	MDIUM-228 ***	•	1/2 en 0		¥	AN.	¥ 2
NTS (SEE BELOW) NA N	CHORILIM-230 ***	•	Due 5/14			\	¥.
NTS (SEE BELOW) NA NA NA NA NA NA NA NA NA N	D-CORO 184 - 030 ***	•	Due 5/14	1	- - - - -	 -	
NA	STATE IN STREET	(SEE BELOW)				 	¥ N
NA		 	NA NA	AN I	<u> </u>		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
CLODES	1. SEMILENCE	 *	¥		- K		NA I
S / OTHERS	Z. VOA	 -	<1.0 ug/i		AS	[[!
NA	3. PCHs	*	¥	 -	-	 	 -
6.0 – 9.0 S.U. 6.51 NA NA NA LY, NO PERMIT DISCHARGE LIMITS of 30 pCi / i, Not to Exceed 100 pCi / i lired once/month. Sampled this batch.	4. PESTICIDES	 	¥Z		 - - -	 	
MONITORING ONLY, NO PERMIT DISCHARGEL Design Value of 30 pCt/1; Not to Exceed Parameter required once/month. Sampled this	5. METALS/OTHERS	1000	8,51	AN	≨	! 	
Not to Exceed	Hd	CO CEDITION OF	RGFLIMITS		\ 		}
= Parameter required once/month. Sampled this	* -MONITORING ONLY	NO PERMIT	-yeard 100 pG//				:
= Parameter regulted once in water		SU JULY 1, 1901 US	ad this batch.				
	*** = Parameter required	dicelling the carrie					
					•		
	NA = Not analyzed.						
= Data re		= Data received	after batch was discha	rrged			
nayzeg. ************************************	nalyzed.	= Data received	after batch was discha	paba			

SUMMARY OF SWTP (BATCH 078) ANALYTICAL RESULTS
From all parties receiving samples on 4/9/96 The second secon

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04/19/96 1410

					ST. CHARLES	ST, LOUIS
	STIME OF COLUMN	PWC DATA	MoDNR DATA	EPA DATA	COUNTY	COUNTY H & W
	APDES CIMITS	RESULTS	HESULTS	RESULTS	DATA RESULTS	DATA RESULTS
PARAMEIEH	100/1/ Ulicas 11/2/20	7100mg		Ā	NA	¥
000	90/06	- 100 T		NA	¥.	¥
TSS	50/30	Ngm bold		NA	NA NA	
ARSENIC	0.1	Mondana A		Y Z	¥	
CHROMIUM	0.1	40.0003 mg/		YX	NA NA	
LEAD	0.1	1000 A 1000 A		AN	ž	
MANGANESE	0.1	1/gm 1800.0			Į.	
MERCURY	0,004	<0,00010 mg/	T	414	NA NA	Ì
MI IM	0,02	<0.005 mg/l		¥ :		
CVANIDE AMENABLE	0.0075	<0.00147 mg/l		¥		
O TOTAL SIME STATE OF THE PARTY	0.22 uail	<0.0168 ug/!		NA NA	¥ ;	
24-03	40	3.93 ma/l		¥.	Y-Y-	
FUNCHIUE	e e	0.720 ma/l		AN	AA.	
NIHATE + NIHIE AS N	07	lum 066		NA	NA	
SULFATE	noc .	240		NA N	ž	
CHLORIDE	*	243 mg/:	 -	VV	AM	29 ± 1.3 pCM
GROSS ALPHA	*	1.50 ± 1.23 pcm		£ .	42	40 4 + 1 1 OCM
GROSS RETA	4	4.90 ± 1,51 pCV		£ .	5	1 1
TOTAL IN TOTAL	**	0.589 ± 0.0158 pCi/		¥	¥ .	<u> </u>
DADII 04 226 ***	*	NA DOM		¥	¥	
-	*	NA DOM		NA	NA.	
FADIUM - 228	*	NA BCI		NA	¥.	¥.
- 1	•	NA oci		NA	NA NA	¥
HIUM-232	0 - 9	797		AN	¥	
pH (Sid. Units)	WEET BELOW				1	
PHORITY FOLUTIONS	100000000000000000000000000000000000000	NA.		NA	A.A.	¥.
1. SEMI - VOA	*	×		AM	¥	¥
2. VCA	2/水中化十	AN / [/D1 02 02		AN	Ν¥	NA NA
9. PCBs/PESTICIDES	4,	AN AN				
4. METALS/OTHERS	 - - - -					
16		17 100				
** = Design Value of 30 pCI/1; Not to Exceed	າ ≀	The best Court		 		!
1	- 1	Sampled in patch Surr.		 	ļ 	
**** = Effective limit of 1 µg/l				<u> </u>		
NA = NOT ANALYZED			 - -	İ		
	∺ Data rece	wed after batch was discharged	D.			

SUMMARY OF SWTP (BATCH 079) ANALYTICAL RESULTS
From all parties receiving samples on 4/30/96

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05/3/96 1550

					ST, CHARLES	SICO1 1S
	STIME STORY	PMC DATA	MODNE DATA	EPA DATA	COUNTY	
	hetou allose noted	RESULTS	RESULTS	RESULTS	DATA RESULTS	DATA RESULTS
PARAMETER	THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE S	<5.00 mo/l		NA NA	Y.Y	ž
000	00708	1000		NA	Y.	NA NA
TSS	06/06	%pm c00.0>	 	ΥN	AN	
ARSENIC	3 0	<0.0023 ma/l		AA	ΝA	Į
CHROMIUM	5 6	<0.00060 mo/l		ΑN	NA	
LEAD		0.0022 mg/l		NA	NA	
MANGANEGE	7000	<0.00010.mod		ΝΑ	₩ ₩	
MERCURY	FON 0	0.0021 mail		ΝĀ	NA NA	
SELFAIUM	20078	<0.005 mod		AN	NA	
CYANIDE, AMENABLE	1000 C	<0.20 ug/l		NA VA	NA.	Ì
2,4UN)	40	2.73 mg/l		NA	NA NA	
FLUCHUE	000	1.04 mail		¥	Y.	- -
NIHAIE + NIHIE ASIN	02	247 mail		¥.	Ϋ́	
SULFATE	nge	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		AN	2	
CHLORIDE	*	1/5 m +c2		AN.	NA NA	Oue
GROSS ALPHA	*	7.82 ± 0.04 pC//			₹N	
GROSS BETA	*	29.74 ± 10.22 pcm		5 3		Pile
LIBANIUM TOTAL	**	0.622 ± 0.016 pCV		\	¥ 1	
BADI IM - 226 ***	*	Due 5/8		AN I	YN .	İ
GADII 84-928 ***	*	Due 5/8	-	¥ i	¥ ;	
THOUSE WAS	•	Due 5/8	1	NA NA	¥ :	5 5
T-100 114 - 222 Att	*	Due 5/8		₩.	¥ :	¥.
	6-9	7,14		¥X	¥	
CONTRACTOR OF STANTS						414
THE PERMIT AND A	-	ΥN VA		¥	¥ ;	W.
100 c	*	NA		AA V	SA:	¥ .
A DOMESTICIDES	4/4446	<1.0 ug/1/NA		≨	¥	¥ .
A METAL SZOTAFBS	-	NA				
* I Monforior Parameter						
** = Daelon Value of 30 pCi / I. Not to	CI/I: Not to Exceed 100 pCi	00 pCI/I				
*** = Monitoring parameter once per month	ance per month.					
**** = Effective limit of 1 µg/l						!
		1				!
NA = NOT ANALYZED	Section of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Contro	Ported discharge				
	= Data repsived and batch was discharged	Datoll was disclining				

SUMMARY OF SWTP (BATCH 080) ANALYTICAL RESULTS From all parties receiving samples on 5/9/96

05/15/96 1310

Selo Iro					ST CHARLES	ST. LOUIS
			THE COLUMN	COA DATA	YLMIO	COUNTY H & W
	NPDES LIMITS	PMC DATA	MoDNH DATA	SECTIONS	DATA RESULTS	DATA RESULTS
PARAMETER	(mg/i) Unless nated	HESULTS	HESOLIS		NA NA	¥
	09 / 06	<5.00 mg/l		2		4
	06,03	2.0 mag		WA	24	2
188	20,000	Jam 600 07		AN.	¥	
ARSENIC		-0.0041 mail		¥	NA.	
CHROMIUM	1,0	Low Cacco		¥	AA	
LEAD	0.1	CO.COCOO ING.	 <u> </u> -	YY	NA.	
MANGANESE	0.1	0.0044 mg/r		Į V	 	
MERCHAY	0.004	<0.00010 mg/l			V V	
	0.02	<0.0015 mg/l	 	¥ :	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	YX.
	Monitor	0.0217 mg/l		YA :	- - - - - - - -	
BARIOM:	0.0075	<0.005 mg/l	_	¥ 	≨ :	
CYANIDE, AMENABLE	3,000	<0.01 uo/		ž	¥	
2,4-DNT	180 27.0	formuc o		¥	¥	
FLUORIDE	4.0	15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>	¥	¥	-
NITRATE + NITRITE AS N	20	ngm ra.u		N N	 <u>*</u>	
Si	200	241 mg/l	1	5	N.A.	!
	*	174 mg/l		₹	<u> </u>	
CHICAGO	-	<4.12 DCM		¥	<u></u>	8
GHOSS ALPHA	-	8 79 + 9 37 pCV		¥	NA NA	- Cute
GROSS BETA		10 4 00 0 4 44 F	 	₹	AN	Due -
URANIUM, TOTAL		1.70 = 0.260	1	AN	≨	
PADIUM-226 ***	*				¥	
BADII M - 228 ***	*					¥
*** 000 11110017	*	***		£.		NAME OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERS
	*	***		AA A	\\ \	
- 1	0 - 4	7.20		NA NA	₹	
PH (Std. Units)	STO LLOS					
PRIORITY POLLUTANTS	SEE DELOW	MA	-	¥	Ą	Y.
1. SEMI-VOA	* !	2		AN	≸2	YY.
2. VOA		VNI		Y	Ϋ́	¥
a PCBs/PESTICIDES	BRYES	AN / INDI OLLS				
4. METALS/OTHERS	*	NA NA				
* = Monitoring Parameter			!	•		
** = Design Value of 30 pCi / 1; Not to Exceed 100	Ci/1: Not to Exceed 1	90 PCI/I				
*** = Monitoring parameter once per month.		Collected during batch 5079 on 4/30/96	9 on 4/30/96.			
**** = Friedlye limit of 1 ug/						
***** Limit on previous permit was 1.5 mg/l.	was 1.5 mg/l.					
NA = NOT ANALYZED						
186	= Data received after	ved after batch was discharged	þá			
Sec. 10.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (0.00 (

SUMMARY OF SWTP (BATCH 081) ANALYTICAL RESULTS
From all parties receiving samples on 5/28/96

Service Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committee Committe

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The second second

06/05/96 1500

					SI. CHARLES	ST. LOUIS
	NPDESTIMITS	PMC DATA	MoDNR DATA	EPA DATA	COUNTY	COUNTY H.& W
	(modil) Holess noted	RESULTS	RESULTS	RESULTS	DATA RESULTS	DATA RESULTS
PAHAME EN	00 / 60	9.94 mail		NA	NA	¥
	50 / 30	2 0 mail		NA NA	NA	¥
188		0.0042 may		NA	NA	
ARSENIC	3 6	0.0037.mg/l		¥X	NA	
CHHOMIUM		0.0018 ma/l		AN	¥N	
LEAD		0.0035 mo/l		ΑΝ	NA	-
MANGANTOT	1000	V0.00010 mg/l		¥	NA	
MERCURY	0.00	70 0025 mod		¥N.	NA	
SELENIUM	20.0	0.070 mof		ž	NA	NA
BARIUM****	Manilor	10 E C L L C C C C C C C C C C C C C C C C		AN N	¥N	
CYANIDE, AMENABLE	e Porch	B-17 - 17 - 17 - 17 - 17 - 17 - 17 - 17	 	42	¥N	
2,4 DNT	0.22 ug/l	20.0177 ugg		414	MA	
FLUORIDE	4.0	2.01 mg/l		Y.	¥ .	
NITHATE + NITHITE AS N	20	0.640 mg/l		¥	¥ :	
	500	299 mg/l		¥	S	
	*	260 mg/l		NA	¥2	
	*	5.34 + 2.04 DCM		¥Z	NA	4.7 ± 1.6 pCi/l
GROSSALPTA	-	11 8 + 1 73 nCM		¥	NA	9,1 ± 1.1 pCi/l
GROSS BETA		100 00 0 to 100 0	Ì	W	Ž	2.6 ± 0.4 pC(f)
URANIUM, TOTAL		2.13 ± 0.03		ΑN	¥	
RADIUM-226 ***	*	1,05 ± 0,59 T			ΨN	
RADIUM - 228 ***	*	1.80 ± 0.592 pCVI	-	¥ :		NA NA
THORIUM-230 ***		0.0902 ± 0.19 pC[/]		¥N.	¥Z :	
THORITM-232 ***	*	0.0620 ± 0.132 pCV		¥¥	Y S	NA.
(etal pts) Ha	6-9	7.80		Ϋ́	NA	
DOCUMENTS OF THE PROPERTY POLITIES	(SEE BELOW)			•		
1 SEMI-VOA	*	NA		YN :	S :	¥ .
2 VOA		NA		AN.	¥2	¥ .
3 PCBs/PESTICIDES	*****	(a) / NA		¥	NA NA	Y.
A METAL SYOTHERS	*	ΨV			1	
* = Monitoring Parameter						
** = Design Value of 30 pCi / I: Not to Exceed		100 pCi / I				
*** = Monitoring parameter once per month.	ı	Collected for June this batch.			į	
**** = Effective limit of 1 µg/l						
***** I imit on previous permit was 1.5 mg/l.	was 1.5 mg/l.					
NA = NOT ANALYZED (a) Aroclor - 1260 detected at 0.12 µg/l all others < 0.1 µg/l	oclor-1260 detected at	0,12 ug/lall others <<	3.1 µg/l.	ļ		
	🚟 = Data received after	wed after batch was discharged	d.			

SUMMARY OF SWTP (BATCH 082) ANALYTICAL RESULTS From all parties receiving samples on 6/17/96

06/26/96 0800

					FST. CHARLES	ST. LOUIS
		ATAG CITO	MACONE DATA	EPA DATA	COUNTY	COUNTY H & W
	NPDES LIMITS	MC DATA	BESUITS	RESULTS	DATA RESULTS	DATA RESULTS
PABAMETER	(mg/l) Unless noted	Ī		NA NA	¥	₹
	09/06	Ì	T.	Ž	NA NA	¥
	50 / 30		 	VIX	 	
	0.1					
THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY O	0.1	<0.0041 mg/l		¥ .	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
MOINOUTE CONTRACTOR	100	1/But 9000'0>		¥.	<u> </u>	
LEAU	10	0.013 mg/l		¥ 	<u></u>	
MANGANESE	2000	<0.00010 mg/l		¥	¥N	
MERCURY	1000	1000015 mg/l	 	AN.	¥ 	
SELENIUM	700	Part of the	<u> </u>	¥	A N	
CYANIDE, AMENABLE	0,0075	Will covids	<u> </u>	¥	NA NA	
2.4-DNT	0.22 ug/l	100 to:0>			 *	
FLIDRIDE	4.0	1,63 mg/l			 	
ANTRATE + NITRITE AS N	50	0.39 mg/l			1	
	500	330 mg/l		NA NA	 	 -
SULPATE	*	174 mg/l		¥	¥ :	!
CHLORIDE	•	100 SO + + A O		ΨN	¥ N	4 / ± 1.5 PCM
GROSS ALPHA	<u> </u>	31.01 CO 1 - 10.0		_	NA NA	9.7 ± 1.1 pC//
GROSS BETA	*	8.46 ± 1.02 [XVIII]		MA	ž	2.2 ± 0.3 pCψl
LIBANIIM TOTAL	***	2.05 ± 0.250 pCi/I	- - -		# N	
DADII 184 - 228 ***		W.		<u> </u>		 -
000 MIN 000 ***	-	¥		<u>{</u> } 		ŠŽ
FAUTOM - 220	•	¥		NA I	 - - -	YX
- 1	*	¥		Ψ N	42	
		6		ž	! ≥ -	
pH (Std. Units)	S 1 D		 	 -		;
PRIORITY POLLUTANTS	(SEE BELUM)			AN.	ΥN	¥
1. SEMI-VOA	<u> </u>			 ≨	¥	AN I
2. VOA	•			YN.	¥.	¥X Y
3. PCBs/PESTICIDES	***	WW/WBMOTS	<u> </u> - -			
A METAL SYOTHERS	*	AN NA				
Monitoring Parameter						
** - Design Value of 30 pCi / I: Not to		100 pCi / 1		ļ		
ו ו	nce per month. Collect	h. Collected for June in batch S081	S081.			
**** = Filective limit of 1 uoi						
						!
NA - NOT ANALYZED						
- 59	not rereived after batch was discharged	r batch was dischard	ed			

St. Louis County Department of Health

SAMPLE ANALYSIS REQUEST

St. Louis County Department of Health ATTENTION: Environmental Health Laboratories PWSD I.D. 6079507 - St. Charles County Water SAMPLE NUMBER DATE COLLECTED: First Ship Operator COLLECTED BY: 1635 South HWY 94 ADDRESS: Zip Code 63341 Defiance, MO (314) 926-9222 (Plant 447-0510) Thomas Aaron TELEPHONE NO.: ANALYSIS REQUESTED: RAW GROSS ALPHA X GROSS BETA RA-226 RA-228 OTHER (Identify) FOR LABORATORY USE ONLY RESULTS_(pCi/L) Gross Alpha 2.0 ± 1.2 Gross Beta 6. / ± 0. 6 Radium 226 Radium 228 Other (Identify) Measurement of Radioactivity in Drinking Water Procedure used: EPA-600/4-80-032

COMMENTS: * MDL is the minimum detectable limit.

ANALYSIS PERFORMED BY:

ST. LOUIS COUNTY DEPARTMENT OF HEALTH

ENVIRONMENTAL HEALTH LABORATORIES

111 So. Meramec - 5th floor

Clayton, MO 63105 (314) 854-6324

ELABORAD-WITE/1004

St. Louis County
Department of Health

SAMPLE ANALYSIS REQUEST

Date Received <u>1/3/96 7</u>

ATTENTION:	St. Louis County Depart Environmental Health La	ment of Health aboratories	
SAMPLE NUMBER		- St. Charles County Wa	
DATE COLLECTED:	4/01/96 Shift	- 6/30/96	
COLLECTED BY:	First Ship Operator		
ADDRESS:	1635 South HWY 94		
	Defiance, MO	Zip Code _	63341
TELEPHONE NO.:	(314)926-9222	(Plant 447-0510) Thomas	5 Aaron
ANALYSIS REQUESTED:	FI	NISHED	
-	X GROSS BETA	RA-226	RA-228
OTHER (Identify)		_	ScT96-7
	FOR LABORATORY		
RESULTS (pCi/L)		*MDL (pCi/L)	7/10/96 Part 24 31
Gross Alpha	.0	1.0	Par JH JH
Gross Beta	2 ± 0.6	1.0	
Radium 226		0.1	
Radium 228		1.0	
Other (Identify)			
	urement of Radioactivity in 600/4-80-032	n Drinking Water	
COMMENTS: * MDL is the	minimum detectable limit		
ANALYSIS PERFORMED E	SY: ST. LOUIS CO ENVIRONMEN 111 So. Merama	UNTY DEPARTMENT OF HI TTAL HEALTH LABORATOR ec - 5th floor	EALTH LIES

Clayton, MO 63105 (314) 854-6324 RECEIVED: 6/11/96 y Results & Invaice = 6/24/96 y

SAMPLE	ANALYSIS	REQUEST

ATTENTION:

Environmental Health Laboratories St. Louis County Health Department

SAMPLE NUMBER	PWSD I.D. #6079507	_	unty Water
DATE COLLECTED:	5-01-	5-31-96	
COLLECTED BY:	First Shift Operator		<u>:</u>
ADDRESS	1635 South HWY 94	,	
	Defience. MO	(Zip Code) <u>63341</u>	
TELEPHONE #	(314) 926-922	· · · · · · · · · · · · · · · · · · ·	- PAW
ANALYSIS REQUESTED:			
X GROSS ALPHA	X GROSS BETA	RADIUM 226	RADIUM 228
Other (Identif	y)		
			
	FOR LABORATORY USE ON	Y	SCR96-6
RESULTS (pCi/I		±MD1. (pCi/L)	,
	.)	±MD1. (pCi/L)	SCR96-6 4/21 14
RESULTS (pCi/I Gross Alpha 2.4 Gross Beta 5.2	<u>* /.2</u>	*MDL (pCi/L) 4/2	,
Gross Alpha 2.4	<u>* /.2</u>	*MDL (pCi/L) 6/2	,
Gross Alpha 2.4 Gross Beta 5.2	<u>* /.2</u>	*MDL (pCi/L) 1.0 1.0	,
Gross Alpha 2.4 Gross Beta 5.2 Radium 226	<u>* /.2</u>	*MDL (pCi/L) 1.0 1.0 0.1	,

COMMENTS: *MDL is the minimum detectable limit.

Analysis performed by:

ST. LOUIS COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH LABORATORIES 111 So. Meramec - 5th floor Clayton, Missouri 63105

CC sent to: T.W. aaron

RECEIVED: 6/11/96 9

Results & Invaire - 6/24/969

SAMPLE.	ANALYSIS	REQUEST
71 TT TT TT	E AT AT ATT TO SERVE	1000

ATTENTION:

Environmental Health Laboratories

St. Louis County Health Department

PWSD I.D. #6079507 - St. Charles County Water SAMPLE NUMBER 5-01- 5-31-96 DATE COLLECTED: First Shift Operator COLLECTED BY: 1635 South HWY 94 ADDRESS Defiance, MO (2in Code) 63341 (314) 926-922 TELEPHONE # Finished

ANALYSIS REQUESTED:

X GROSS ALFHA X ___ GROSS BETA RADIUM 226 RADIUM 228

Other (Identify)

FOR LABORATORY USE ONLY

SCT96-6_

RESULTS (pC	<u>L/L)</u>		DL (⊃Ci/L)	6/24/96	/ II
Gross Alpha	<1.0	_	1.0	124 (46	2/19
Gross Beta	4. Z ± 0.5	<u>.</u>	1.0		
Radium 226			0.1		
Radium 228		_	1.0		
Other- Identify					

Procedure used: Measurement of Radioactivity in Drinking Water EPA-600/4-80-032

COMMENTS: *MOL is the minimum detectable limit.

Analysis performed by:

ST. LOUIS COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH LABORATORIES

111 So. Meramec - 5th floor Clayton, Missouri 63105

copento: T. W. aaron

ST. CHARLES COUNTY MONTHLY WATER SALES REPORT

D	ATE OF REPORT	07/01/96		
M	ONTH OF REPORT	JUN96		
W	ATER PRODUCTION ASHWATER USED ELIVERED TO SYSTEM			377,838,000 6,699,000 371,139,000
6 6 6 6 6 6	0. AMERICAN WATER 7004132835-007 7004132850-007 7004133000-004 7004133010-002 7004133020-000 7004132855-002 7004132890-009 7095018237-000	BOOSTER STATION FRANCIS HOWELL MO. HWYS & TRAN M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN FRANCIS HOWELL M.K. FERGUSEN M.K. FERGUSEN	ŧs.	276,021,000 40,000 3,100 817,000 570,000 117,000 31,000 588,000 68,000 124,000 278,379,100
	ATER DISTICT #2		FOTAL FOTAL	80,243,000 80,243,000 80,243,000
ī	NATIONAL GUARD AREA	BLGD S-61 WASH RACK	TOTAL	5,000 2,000 7,000
7	TOTAL WATER SALES	******	****	367,204,100

ST. CHARLES COUNTY WATER DEPARTMENT

JUNE 96		INVENTORY	OF CH	EMICALS		
* +		LIME				CHLORIN
PREVIOUS BALANCE		179523				12085
DEGITATION.	YARI E DAME			T 1077 / J	Losmo	
RECIEVED	INV. # DATE 201877.6/4	49660		INV. #	6/14	8000
	202268.6/6	49440			6/28	8000
	202746.6/11	48860			0720	4000
	6/13	48720				
	203818.6/18	48740				
	204237.6/20	49500				
	204874.6/25					
	204874.6/27	49700				
	*****	** 394260		****	*****	16000
	TOTAL AMOUNT					28085
	IGIAH MIQUI	. 5,5,65				20005
	USED	365729				20100
	BALANCE	208054				7895

0.0595

5.95

670

97961

#/1000 GALLON 1.00

PARTS/MILLION 129

AVG. #/DAY 12858

USED Y TO D 2334508.

MONTHLY REPORT

AUGUST 1996

 $\mathbf{B}\mathbf{Y}$

Stanley Remington

Consulting Hydrologist

The results from sampling wells PW-3 and PW-4 have been received and are appended. These wells were sampled on July 26, 1996. No detections were noticed for the nitroaromatics (listed as "Explosives") and normal quantities of total uranium, gross alpha and beta were noted. That is, all of the results are well within NPDES limits and are in line with historical values.

Wells PW-5 and PW-6 were sampled on August 22, 1996. These results have not yet been received.

II. <u>REPORTS</u>

Three reports have been received by me from the Department of Energy. The first was received during July 1996 and was entitled "Weldon Spring Site Environmental Report for the Calendar Year 1995". The objective of the report was to characterize trends and environmental conditions at the site and to confirm compliance with environmental and health protection standards and requirements. The report also presents the status of remedial activities and the results of monitoring these activities to assess their impact on the public and the environment. The Monitoring Summary stated, "Environmental monitoring data showed that dose estimates were below the US Department of Energy guideline of 100 mrem (1 mSv) annual total effective dose equivalent for all exposure pathways. NESHAP's (National Emission Standards for Hazardous Air Pollutants) air monitoring results for radioactive air particulates showed that dose estimates were

-•

all well below the NESHAP standard of 10 mrem (0.1 mSv) per year. In addition several other characterizations were monitored including surface and groundwater. The important thing was that no hazardous materials have yet to reach the St. Charles County Well Field. Based on the past several years it is doubtful if any ever will, but monitoring for these in the future will be necessary.

A second report entitled "Engineering Evaluation/Cost Analysis for the Proposed Removal Action at the Southeast Drainage Near the Weldon Spring Site, Weldon Spring, Missouri" was prepared to support a proposed removal of contaminated sediment from selected portions of the Southeast Drainage as part of the cleanup activities being conducted by the US Department of Energy at the Weldon Spring Site in St. Charles County, Missouri. Comments were encouraged by any or all of the recipients of the report. The southeast drainage is a natural 2.4 km. (1.5 mi.) channel that carries surface runoff to the Missouri River from the southern portion of the chemical plant area and a small portion of the ordinance works area (part of the Weldon Spring Training Area) south of the groundwater divide. The drainage becomes contaminated as a result of past activities of the US Anny and the DOE (and its predecessors). Several different calculation types were performed including risk, sediment, surface water, exposure and something called risk characterization. The entire report is high technical and is available for analysis from St. Charles County, the County Library or me for anyone interested in the technical points analyzed.

A third report entitled "Quarterly Environmental Data Summary for the Second Quarter 1996" was received. There were several above normal readings noted primarily in sources near the quarry and raffinate pit areas and one sample from the Site Water Treatment Plant. This latter site was retested and showed a normal value for the metals detected, that is, fluoride, selenium and silver. They are below baseline. Still no above averages were noted in any of the County's pumping wells. High readings were almost always due to laboratory errors. Whenever subsequent tests were made they have always returned to their historical values.

III. FUTURE PLANS

I will sample the quarterly batches from wells in September with the DOE and maybe the Missouri Department of Natural Resources. This will be done in mid-September.

IV. MISCELLANEOUS

Appended are the test results for raw and treated water taken from the Water Plant between July 1 and 31, 1996. Also appended is the St. Charles County Monthly Water Sales Report.

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

August 15, 1996

Stanley M. Remington 956 Broadmoor Lane St. Charles, MO 63301

RE: ATAS #16349.01-#16349.02

Weldon Spring

Dear Mr. Remington:

Enclosed are the analytical reports for the samples received in our laboratory on July 26, 1996.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

Enclosures

JAC/sdp

STANLEY M. REMINGTON

REPORT: 1634901EX(256)

956 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 08-15-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER : 16349.01 ATAS # DATE SUBMITTED: 07-26-96 DATE EXTRACTED: 07-31-96

DATE ANALYZED : 08-04-96 METHOD REF. : SW846-8330, EPA METHODOLOGY PROJECT : WELDON SPRING

SAMPLE ID : PW-3

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION <u>LIMIT</u>	RESULTS
HMX	13.0	ND
RDX	14.0	MD
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
o-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

ATAS

IENT: STANLEY M. REMINGTON

REPORT: 1634901EX(256)

956 BROADMOOR LANE

DATE : 08-15-96

ST. CHARLES, MO 63301 ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER
ATAS # : 16349.02
DATE SUBMITTED: 07-26-96
DATE EXTRACTED: 07-31-96
DATE ANALYZED : 08-04-96

METHOD REF. : SW846-8330, EPA METHODOLOGY

PROJECT : WELDON SPRING

SAMPLE ID : PW-4

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	<u>results</u>
нмх	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	\mathbf{N} D
2.4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
O-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

ATAS

IENT: STANLEY M. REMINGTON

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1634901EX(256)

DATE : 08-15-96

ND

SAMPLE MATRIX : WATER

ATAS # : METHOD BLANK
DATE SUBMITTED: 07-26-96
DATE EXTRACTED: 07-31-96

DATE ANALYZED: 08-04-96

METHOD REF. : SW846-8330, EPA METHODOLOGY

PROJECT : WELDON SPRING SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

CUANTITATION RESULTS LIMIT EXPLOSIVE ND 13.0 **HMX** ND14.0 RDXND 7.3 1,3,5-TNB ND10.0 TETRYL ND 4.01,3-DNB ND 7.0 NITROBENZENE ND 9.4 2,6 DNT ND 5.7 2,4 DNT ND6.4 2,4,6 TNT ND 12.0 O-NITROTOLUENE ND8.D p-NITROTOLUENE

7.9

m-NITROTOLUENE

IENT: STANLEY M. REMINGTON

REPORT: 1634901EX(256)

956 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 08-15-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : LABORATORY CONTROL SAMPLE

DATE SUBMITTED: 07-26-96

DATE EXTRACTED: 07-31-96

DATE ANALYZED : 08-04-96

METHOD REF. : SW846-8330, EPA METHODOLOGY PROJECT : WELDON SPRING

SAMPLE ID

: LABORATORY CONTROL SAMPLE

COMPOUND	PERCENT RECOVERY	
HMX RDX 3,5-TNB TRYL 1,3-DNB TNT NITROBENZENE 2,6 DNT 2,4 DNT 0-NITROTOLUENE p-NITROTOLUENE	107 % 114 % 113 % 102 % 118 % 107 % 125 % 111 % 103 % 116 %	
m-NITROTOLUENE	116 %	



STANLEY M. REMINGTON

956 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1634901EX(256)

DATE : 08-15-96

SAMPLE MATRIX : WATER ATAS EPISODE : #16349 DATE SUBMITTED: 07-26-96

PROJECT REF. : WELDON SPRING

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	RADIONUCLIDE	RESULT
PW-3 PW-3 PW-3	16349.01 16349.01 16349.01	GROSS ALPHA GROSS BETA TOTAL URANIUM	3 +/- 2* 8 +/- 5* <0.005
•		(mg/L)	
PW-4	16349.02	GROSS ALPHA	2 +/- 2*
* PW-4	16349.02 16349.02	GROSS BETA TOTAL URANIUM	6 +/- 4* <0.005
PW-4	16349.02	(mg/L)	Q.,005

^{*} VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% COMPIDENCE LEVEL, 1.960.

pci/L= PICOCURIES PER LITER $mg/L \simeq PARTS PER MILLION(PPM)$



AMERICAN TECHNICAL & ANALYTICAL SERVICES, Inc. 815 Feb Five Float Supplied Heights, MO 63045-2211 - CALLE (514) 434-4570 - FAX 1314-434-4500

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CHAIN OF CUSTODY RECORD

| | |-PAGE

/ Department of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of th			27-97-C	Location/Tempo Remarks 0.94 24C	16,349 01.	de le							Turnaround Requirements 1 to 2 working days	and well-born 6	5 working days	10 working days	15 working days Preservalive codes A - none	B - HNO3 C - H2SQ4	HOBON - CI	
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2,000				×						Received by:		Signature	Printed Name	Flm	Date/Time	ļ	
	O Type of Analysis	nistro	25/24/2010	25 CEN	XXXX								Refinquished by:		Signature	Printed Name		Date/filme		10 Clera
			PO#	Sample Somp	Mauly		X						Received by	る一名をプレー	TES SOFS	 -	Firm Firm Firm	2	; (A	Original to ATASICopy to Clean
7		Froject #		-	Thy los nods	1 -	129		<u> </u>			-	11/1/	14 min 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A-MW. TON WAY	ĬŽ	1007		SEND RESULTS TO (Name & Company):	
	Name	V	Form Completed By	01118	Sample ID	Dairy	WATER						Rejinquished by	CAMPS M	Signature	[8]	Figure COUNTY	Date/Time	SEND RESU	

Date Received 08-06-96

ATTENTION:	St. Louis County Department of Environmental Health Laborato	of Health ories	
SAMPLE NUMBER	PWSD I.D. 6079507 - St	. Charles County Water	7
DATE COLLECTED:	07-01 - 07-	31-96	
COLLECTED BY:	First Shift Operator		
ADDRESS:	1635 South HWY 94		
	Defiance, MO	Zip Code	63341
TELEPHONE NO.:	(314) <u>926-9222 (P1</u>		taron
ANALYSIS REQUESTED:		KAW	
	GROSS BETA	RA-226 F	₹A-228
	FOR LABORATORY USE	<u> </u>	5CR96-8
RESULTS (pCi/L)		*MDL (pCi/L)	8/15/16 VI
Gross Alpha	1.1	1.0	4,0
Gross Beta <u>5.7</u>	<u> </u>	1.0	
Radium 226		0.1	
Radium 228		1.0	-
Other(Identify)			**************************************
Procedure used: Meas EPA	surement of Radioactivity in Drin -600/4-80-032	king Water	
COMMENTS: * MDL is th	e minimum detectable limit.		
ANALYSIS PERFORMED	BY: ST. LOUIS COUNTY ENVIRONMENTAL	Y DEPARTMENT OF HEA HEALTH LABORATORIE	LTH S

111 So. Meramec - 5th floor

Clayton, MO 63105 (314) 854-6324

St. Louis Councy Department of Heralth
ATTENTION:
SAMPLE NUMBER
DATE COLLECTE
COLLECTED BY:
ADDRESS:

SAMPLE ANALYSIS REQUEST

Date Received <u>08-06-96</u>

ATTENTION:	St. Louis County Department of Health Environmental Health Laboratories	
SAMPLE NUMBER	PWSD I.D. 6079507 - St. Charles County Water	
DATE COLLECTED:	07-01-07-31-96	
COLLECTED BY:	First Shift Operator	
ADDRESS:	1635 South HWY 94	
100.000	Defiance, MO Zip Code63341	
TELEPHONE NO.:	(314) 926-9222 (Plant 447-0510) Thomas Aaron F/N/Shed	
ANALYSIS REQUESTED:		
GROSS ALPHA	GROSS BETA RA-226 RA-228	
OTHER (Identify	v)	
	FOR LABORATORY USE ONLY	76 -8
RESULTS (pCi/L)	*MDL (pCi/L) 8/15/42	v
Gross Alpha	<u> </u>	α_{j}
	.9 ± 1.0	
Radium 226		
Radium 228		
Other		
Procedure used: Meas EPA	surement of Radioactivity in Drinking Water 1-600/4-80-032	
COMMENTS: * MDL is th		
ANALYSIS PERFORMED	BY: ST. LOUIS COUNTY DEPARTMENT OF HEALTH ENVIRONMENTAL HEALTH LABORATORIES	

111 So. Meramec - 5th floor

Clayton, MO 63105 (314) 854-6324

ST. CHARLES COUNTY MONTHLY WATER SALES REPORT

DATE OF REPORT	08/05/96	
MONTH OF REPORT	JULY	
WATER PRODUCTION WASHWATER USED DELIVERED TO SYSTEM		435,677,000 6,795,000 428,882,000
MO. AMERICAN WATER 67004132835-007 67004132850-007 67004133000-004 67004133010-002 67004133020-000 67004132855-002 67004132890-009 67095018237-000	BOOSTER STATION FRANCIS HOWELL MO. HWYS & TRANS. M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN FRANCIS HOWELL M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN	330,000,000 33,000 6,600 829,000 450,000 62,500 9,500 347,000 62,000 165,000 331,964,600
WATER DISTICT #2	24" EAST LINE 24" WEST LINE BYPASS TOTAL NEW MELLE TOTAL	0 78,289,000 0 78,289,000 8,466,000
NATIONAL GUARD AREA	BLGD S-61 WASH RACK TOTAL	10,090 4,000 14,000
TOTAL WATER SALES	****	418,733,600

ST. CHARLES COUNTY WATER DEPARTMENT

JULY 1996 PREVIOUS BALANCE	in	VENTORY LIME 208054	of	CHEMICALS		CHLORIN 7905
RECIEVED	INV. # DATE 205774.7/1 205967.7/2 206544.7/5 206085.7/8 208504.7/10 155592.7/11 300457.7/15 300801.7/17 301014.7/18 301474.7/22 301767.7/24 301945:7/25 302425.7/29 302793.7/31	LIME 48280 49300 49720 49160 47660 48300 47940 49980 49600 50120 48940 48540		INV. #	DATE 7/8 7/15 7/24	CHLORIN 8000 8000 8000
	**************** TOTAL AMOUNT	686800		*****	*****	24000
	USED	654243				31985
•	BALANCE	240611				8373
	#/1000 GALLON	1.50				0.054
	PARTS/MILLION	171				6.78
	ΛVG. ≱/DAY	21105				762
	# USED Y TO D	2988751				121573.

MONTHLY REPORT

SEPTEMBER 1996

 $\mathbf{B}\mathbf{Y}$

Stanley Remington

Consulting Hydrologist

On August 22, 1996 wells PW-5 and PW-6 were sampled. The results of the sampling show that neither well exceeded the NPDES limits. Both were within historical ranges. The parameters analyzed were gross alpha and beta, total uranium and nitroaromatics (shown as explosives). They are appended.

On August 26, 1996 a sample of the treated water from the raffinate pits at the chemical plant site at Weldon Spring was sent for analysis. The gross beta reading was slightly elevated, but well within historical ranges and NPDES limits. This batch of treated water was discharged into the Missouri River. They are appended.

On September 19, 1996 the quarterly sampling with the Department of Energy was carried out. I sampled wells PW-8 and RMW-2. The results of analyses have not yet been received. The quarterly sampling analyzes for more chemical parameters than do the monthly samples. They include several metals and nitrates.

II. FUTURE PLANS

I will sample PW-7 during October. I will attend a one day meeting in St. Louis called the Tenth Annual St. Louis Regional Environmental Conference. This will be held at the Adam's Mark Hotel. There will be breakout sessions in the afternoon and I will attend the one for water.

III. MISCELLANEOUS

Appended are the results on an analysis of the raw water at the St. Charles County Water Treatment Plant for the period of 8/1/96 through 8/31/96. Gross alpha and beta were checked and very low readings were obtained.

Also appended is the St. Charles County Monthly Water Sales report.

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

September 5, 1996

Stanley M. Remington 956 Broadmoor Lane St. Charles, MO 63301

RE: ATAS #16644.01 Weldon Spring

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on August 26, 1996.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

Enclosures

JAC/dms



CLIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1664401EX(260)

DATE : 09-05-96

SAMPLE MATRIX : WATER

ATAS 🗲

: 16644.01

DATE SUBMITTED: 08-26-96

PROJECT : WELDON SPRING

SAMPLE ID : NP-ES12-082696-C

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		IN	organics		
NITRATE	1.05	mg/L	3.92	08-27-96	SM 418B
			METALS		
ARSENIC CHROMIUM LEAD MANGANESE SELENIUM MERCURY	5.0 1.0 3.0 1.0 0.1 5.0	ug/L ug/L ug/L ug/L ug/L ug/L	ND ND ND 1.9 ND ND	09-05-96 09-05-96 09-05-96 09-05-96 09-04-96	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

ug/L = PARTS PER BILLION(PPB)

mg/L = PARTS PER MILLION(PPM)

= NOT DETECTED ABOVE REPORTING LIMIT NĎ

LIENT:

STANLEY M. REMINGTON

REPORT: 1664401EX(260)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-05-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX :

WATER ATAS # : 16644.01

DATE SUBMITTED: 08-26-96

DATE EXTRACTED: 08-29-96

DATE ANALYZED: 08-30-96

METHOD REF. : SW846-8090, EPA METHODOLOGY PROJECT : WELDON SPRING

SAMPLE ID : NP-ES12-082696-C

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

REPORTING

EXPLOSIVE	LIMIT	RESULTS
2,6 DNT	0.010	ND
2,4 DNT	0.020	ND

OA/QC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150) 90 % TETRACHLORO-M-XYLENE(30-150) 77 % 4745 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON REPORT: 1664401EX(260)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-05-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : METHOD BLANK

DATE SUBMITTED: 08-26-96 DATE EXTRACTED: 08-29-96 DATE ANALYZED: 08-30-96

METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

REPORTING

EXPLOSIVE	LIKIT	RESULTS
2,6 DNT	0.010	ND
2,4 DNT	0.020	ND

QA/OC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150) 71 % 73 % TETRACHLORO-M-XYLENE(30-150)

LIENT: STANLEY M. REMINGTON

REPORT: 1664401EX(260)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-05-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER ATAS #

LABORATORY CONTROL SAMPLE

ATAS # : LABORATOR
DATE SUBMITTED: 08-26-96

DATE EXTRACTED: 08-29-96

DATE ANALYZED: 08-30-96

METHOD REF. : SW846-8090, EPA METHODOLOGY PROJECT : WELDON SPRING SAMPLE ID : LABORATORY CONTROL SAMPLE

•	LCS % REC.	LCSD % REC.	RPD	
1 2,6 DNT	79 75	36 36	75 70	

CLIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, NO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1664401EX(260)

DATE : 09-05-96

SAMPLE MATRIX: WATER ATAS EPISODE : #16644

DATE SUBMITTED: 08-26-96

PROJECT REF. : WELDON SPRING

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	RADIONUCLIDE	RESULT
NP-ES12-082696-C NP-ES12-082696-C NP-ES12-082696-C		GROSS ALPHA GROSS BETA TOTAL URANIUM (mg/L)	8 +/= 6* 22 +/- 11* <0.005

^{*} VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.960.

pci/L= PICOCURIES PER LITER mg/L = PARTS PER MILLION(PPM)

Section Property

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ENVIRONMENTAL SAMPLE CHAIN-OF-CUSTODY / AUTBORIZATION FORM WELDON SPRING SITE REMEDIAL ACTION PROJECT (WSSRAP) 7295 HICHWAY 94 SOUTH, ST. CHARLES, MO 63304 TELEPHONE (314) 441 – 8086 TELEX (314) 447 – 0803

/alidation Decomentation				ESALLAL, Rev.S. Liferior 11/2	eater 11/03
West AP Content	LatyP.O. #:			Dept/Cost Code:	
Phone Number	Requisitioner: St	t, Charles]
Scanest Number	Turinaround Times	Shindard	<u>*</u>	Aoxiemed [] Priority [] Urgentack [] Ismetgeney	cney
* Sample 1D	QC Date	Mattix	Cont. Preserv.	Parameters 8-26-96 -ACL	Arch.
1 No. 5813 - 687696 - C	76/72/8	Water 1-1		As, Cr, Hg, Mn, Se, Pb	
	1	<u> </u>	-1 liter plass Ice	"	
	1 -		1.ter 112504	<u> </u>	
		<u>1-1</u>	1-4 liter HN03	U, Gross alpha, Gross beta	
			1		
		; ; 			
			 		<u>_</u>
7.14					
	i				
	SHIPS	THE STREET			
upler's Signature	Checked By	 	: 	Technical Reviewer	
M. W. Champel Day	and liv	Tiose		Reason for Transfer (YAN)	Cooler Temp
J. O. C.	18 -14				j
Mark Colors		1337 U	185		-
7	-				
					\bigcap

AUTHORIZATION

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

September 19, 1996

Stanley M. Remington 956 Broadmoor Lane St. Charles, MO 63301

RE: ATAS #16613.01-#16613.02

Weldon Spring

Dear Mr. Remington:

Enclosed are the analytical reports for the samples received in our laboratory on August 22, 1996.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

Enclosures

JAC/sdp

IENT: STANLEY M. REMINGTON

REPORT: 1661301RA(259)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-19-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : 16613.01 DATE SUBMITTED: 08-22-96

DATE ANALYZED : 08-29-96

METHOD REF. : SW846-8330, EPA METHODOLOGY .

PROJECT : WELDO SAMPLE ID : PW-5 : WELDON SPRING

RESULTS REPORTED IN ug/L OR PARTS PER BILLION (PPB)

OHANTITATION

EXPLOSIVE	<u>LIMIT</u>	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	NĎ
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
O-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

STANLEY M. REMINGTON LIENT:

REPORT: 1661301RA(259)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-19-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER ATAS # : 16613.02 DATE SUBMITTED: 08-22-96 DATE ANALYZED : 08-29-96

METHOD REF. : SW846-8330, EPA METHODOLOGY PROJECT : WELDON SPRING SAMPLE ID : PW-6

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION <u>LIMIT</u>	RESULTS
нмх	13.0	ND
RDX	1 4.0	ND
1,3,5-TNB	7.3	\mathbf{N} D
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
O-NITROTOLUENE	12.0	ND
	8.0	ND
p-NITROTOLUENE	7.9	ND
m-NITROTOLUENE	7.9	14.25

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

LIENT: STANLEY M. REMINGTON REPORT: 1661301RA(259)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-19-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : METHOD BLANK DATE SUBMITTED: 08-22-96

DATE ANALYZED : 08-29-96

METHOD REF. : SW846-8330, EPA METHODOLOGY

PROJECT : WELDON SPRING SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

OTTANTITUTE TON

	SOMMITTARTION	
EXPLOSIVE	<u>LIMIT</u>	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	, ND
TETRYL	10.0	ND
1,3-DNB	4.0	МÐ
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
O-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND



LIENT: STANLEY M. REMINGTON

REPORT: 1661301RA(259)

919 BROADMOOR LANE

ST. CHARLES, MO 63301

DATE : 09-19-96

ATTN: STANLEY M. REMINGTON

SAMPLE MATRIX : WATER

ATAS # : LABORATORY CONTROL SAMPLE

DATE SUBMITTED: 08-22-96

DATE ANALYZED : 08-29-96

METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : LABORATORY CONTROL SAMPLE

COMPOUND	PERCENT RECOVERY
Tony	96 %
HMX RDX	124 %
1,3,5-TNB	105 %
ETRYL	70 %
1,3-DNB	105 %
TNT	105 %
NITROBENZENE	113 %
2.6 DNT	111 %
12.4 DNT	105 %
O-NITROTOLUENE	102 %
-NITROTOLUENE	112 %
m-NITROTOLUENE	108 %

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

LIENT:

STANLEY M. REMINGTON

919 BROADMOOR LANE

ST. CHARLES, MO 63301

ATTN: STANLEY M. REMINGTON

REPORT: 1661301RA(259)

DATE : 09-19-96

SAMPLE MATRIX : WATER

ATAS EPISODE : #16613 DATE SUBMITTED: 08-22-96

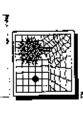
PROJECT REF. : WELDON SPRING

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	RADIONUCLIDE	RESULT
PW-5 PW-6 PW-5 PW-6 PW-5	16613.01 16613.02 16613.01 16613.02 16613.01	GROSS ALPHA GROSS ALPHA GROSS BETA GROSS BETA TOTAL URANIUM (mg/L)	5 +/- 4* 1 +/- 2* 8 +/- 6* 9 +/- 6* <0.005
PW-6	16613.02	TOTAL URANIUM (mg/L)	<0.005

^{*} VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.960.

bci/L= PICOCURIES PER LITER mg/L = PARTS PER MILLION (PPM)



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A.

CHAIN OF CUSTODY RECORD

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	tos Chemical (see below)	2	8.22.46	Remarks 64 A.C. 14	16613.01	102						Turnaround Requirements 1 to 2 working days	3 working days 5 working days	10 working days	15 working days Preservative codes A - none	B - HNOs C - H2SO4	E-HCI
			12/20 200/20				*		-			Received by:	Signature	Printed Name	Firm	Dale/Time	
es es es es es es es es es es es es es e	Type of Analysis	~	010	10.00	X X X X	* * * * *						Refinguished by:	Signature	Printed Name		DaleTime	
	7	Project #	PO#	Sample Sample & Company Sample Company Sample Matrix Sample Company Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Samp	×		× 0800					Machined W.	Signature Signature		3h2 186 102 Film	X -	Company):
TAS Client Name	SLAS KINA SOLOS	Project Name Spring	Form Completed By	Sample	12	3	P.ANT "					Rethouished by:	Oftowerted		1003		SEND RESULTS TO (Name & Company):

St. Lauis County Department of Health
Department of Health

SAMPLE ANALYSIS REQUEST

Hesults 9/20/967

Date Received 9/6/969

ATTENTION:	St. Louis County Department of Health Environmental Health Laboratories
SAMPLE NUMBER	PWSD I.D. 6079507 - St. Charles County Water
DATE COLLECTED:	08-01-08-31-96
COLLECTED BY:	First Shift Operator
ADDRESS:	1635 South HWY 94
	Defiance, MO Zip Code 63341
TELEPHONE NO.:	(314) 926-9222 (Plant 447-0510) Thomas Aaron.
ANALYSIS REQUESTED:	<u> </u>
X GROSS ALPHA	X GROSS BETA RA-226 RA-228
OTHER (Identify)	
	FOR LABORATORY USE ONLY
RESULTS (pCi/L)	*MDL (pCi/L) 9/17/26
Gross Alpha	
Gross Beta5.1.5	<u>1.1</u>
Radîum 226	
Radium 228	
Other(Identify)	<u> </u>
	urement of Radioactivity in Drinking Water 600/4-80-032
COMMENTS: * MDL is the	minimum detectable limit.
ANALYSIS PERFORMED I	SY: ST. LOUIS COUNTY DEPARTMENT OF HEALTH ENVIRONMENTAL HEALTH LABORATORIES 111 So. Meramec - 5th floor

Clayton, MO 63105 (314) 854-6324

ELABORAD STOCKS

St. Louis County
Department of Health

SAMPLE ANALYSIS REQUEST

Parello 9/20/96 9

Date Received 9/6/96 9

ATTENTION:	St. Louis County Department of Health Environmental Health Laboratories
SAMPLE NUMBER	PWSD I.D. 6079507 - St. Charles County Water
DATE COLLECTED:	08-01-08-31-96
COLLECTED BY:	First Shift Operator
ADDRESS:	1635 South HWY 94
	Defiance, MO Zip Code 63341
TELEPHONE NO.:	(314) <u>926-9222 (Plant 447-0510) Thomas Aaron</u>
ANALYSIS REQUESTED:	
X GROSS ALPHA	X GROSS BETA RA-226 RA-228
OTHER (Identify	SCT96-9
2000000 1000000000000000000000000000000	FOR LABORATORY USE ONLY
RESULTS (pCi/L)	*MDL (pCi/L) 9/17/96
Gross Alpha	< 1.0
Gross Beta 3	.8 ± 0.9
Radium 226	0.1
Radium 228	
Other(Identify)	
Procedure used: Meas EPA	surement of Radioactivity in Drinking Water -600/4-80-032
COMMENTS: * MDL is th	e minimum detectable limit.
ANALYSIS PERFORMED	BY: ST. LOUIS COUNTY DEPARTMENT OF HEALTH ENVIRONMENTAL HEALTH LABORATORIES 111 So. Meramec - 5th floor

Clayton, MO 63105 (314) 854-6324

ST. CHARLES COUNTY MONTHLY WATER SALES REPORT

DATE OF REPORT	09/04/96	
MONTH OF REPORT	AUGUST	
WATER PRODUCTION WASHWATER USED DELIVERED TO SYSTEM		483,307,000 7,327,000 475,980,000
	BOOSTER STATION FRANCIS HOWELL MO. HWYS & TRANS. M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN M.K. FERGUSEN FRANCIS HOWELL M.K. FERGUSEN M.K. FERGUSEN TOTAL	330,531,000 34,000 3,500 829,500 597,000 90,500 16,500 296,000 74,000 57,000 332,529,000
WATER DISTICT #2 WATER DISTICT #2	24" EAST LINE 24" WEST LINE BYPASS TOTAL NEW MELLE TOTAL	0 82,406,000 0 82,406,000 9,583,000
NATIONAL GUARD AREA	BLGD S-61 WASH RACK TOTAL	58,000 0 58,000
TOTAL WATER SALES	*****	424,576,000

ST. CHARLES COUNTY WATER DEPARTMENT

AUG 1996 PREVIOUS BALANCE		INVENTORY LIME 240611	OF CHEMICALS		CHLORIN 8373
RECIEVED	INV. # DATE 303039.8/1 303799.8/6 304140.8/8 304939.8/14 305209.8/15 305945.8/20 306318.8/22 307085.8/27 307514.8/29 307743.8/30	LIME 49100 49080 49400 49980 48740 49480 49480 48520 48840 49800		DATE 8/5 8/16 8/26	CHLORIN 8000 8000 8000

TOTAL AMOUNT	492420 733031	*******	24000 32373
USED	534734		26420
BALANCE	198297		7564
#/1000 GALLON	1.03		0.050
PARTS/MILLION	1 2 3		6.15
AVG. #/DAY	17249		852
# USED Y TO D	3523485.		147993.